

REMARKS

Claims 4-10, 12, 13 and 15-28 are pending in the application. Applicant notes with appreciation the allowance of claims 12, 13 and 15-21. Applicant hereby submits a request for continued examination under 37 CFR § 1.114 with this accompanying reply. Reexamination and reconsideration of the application are requested.

The Examiner rejected claims 22-27 under 35 U.S.C. § 102(b) as being anticipated by Teaney (U.S. Patent No. 5,171,930). Claims 4, 5 and 22-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kohler (U.S. Patent No. 6,140,568).

As the Examiner has correctly noted, Kohler and Teaney both disclose decomposing an input sound signal to obtain a characteristic of the signal, such as pitch or volume. Kohler discloses decomposing an analog signal with a plurality of frequencies into sine wave components. The harmonics are removed from the sine wave components to obtain the fundamental frequencies which are then written into a MIDI file (see Col. 5, Lines 34-41). Teaney discloses using an electroglottograph and microphone to accurately pick up the pitch and volume of a performer's voice and then converting the signals into a MIDI output (see Col. 2, Lines 12-22).

What both of these references fail to disclose is using a characteristic such as volume to set parameters for use in subsequent analysis of sound signals as recited in claims 4, 5 and 22-28. The detected volume, for example, can be used to set a volume threshold value for subsequent analysis of a signer's voice. In contrast, the conventional sound signal devices do not set parameters based on a characteristic of an input sound signal, but rather use pre-set parameters. These pre-set parameters are designed with a typical user in mind. If the user has a uniquely low-volume voice (for example), the conventional sound signal device would fail to analyze certain notes. The present invention, on the other hand, would be able to adjust the threshold value, because it is set based on the input sound signal.

Teaney and Kohler are both conventional sound signal analyzing devices, and thus do not disclose setting parameters based on a characteristic of an input sound signal. Nothing in Teaney discloses or suggests that the cited threshold levels (Col. 5, Line 11) are based on a characteristic of the input sound signal. Kohler does not even disclose thresholds and pitch limits as the Examiner has acknowledged. The Examiner seeks to modify Kohler by stating (with respect to pitch limits) that it "would have been obvious to a person of ordinary skill in the art of signal processing at the time of the invention to establish limits beyond which and less than which a signal would be considered." The issue is not establishing limits but the *manner* in which those limits are established.

Accordingly, Applicants respectfully submits that claims 22-28 are not anticipated by nor obvious in view of either Teaney or Kohler.

The Examiner maintains his rejection of claims 6-10 under § 103(a) as being unpatentable over Kohler in view of Humphrey et al. (U.S. Patent No. 3,894,186). It is respectfully submitted that the Examiner has merely repeated his rejection without addressing the Applicant's "Remarks" in the Amendment dated August 5, 2002. Specifically, the references do not contain any motivation to provide scale selection or note determination based upon scale selection. The fact that Kohler may determine notes and Humphrey may assign notes does not provide any motivation for determining a note in accordance with a selected scale.

In view of the foregoing, it is respectfully submitted that all of the claims are in condition for allowance, and such action at an early date is solicited.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 393032009400. However,

the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,



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